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Section I. Claims

Please amend claims 15, 16 and 18; and cancel claims 2, 5, 6, 13 and 17, as set out in the complete listing of the claims below.

1. (Original) A vector for preparing a vaccine which contains one or more than two gene among pgs B, pgs C and pgs A encoding poly- γ -glutamate synthetase complex and an antigen protein gene of human papilloma virus.

2. (Cancelled)

3. (Original) The vector for preparing a vaccine according to claim 1, in which said antigen protein gene is one or more than two genes selected from a group comprising HPV E6 and HPV E7 antigen protein associated with a tumor induction.

4. (Previously amended) The vector for preparing a vaccine according to claim 1, in which pgs A gene encoding said poly- γ -glutamate synthetase complex is contained.

5. (Cancelled)

6. (Cancelled)

7. (Original) A Gram positive microbe which is transformed with the vector for preparing a vaccine of claim 1.

8. (Original) The microbe according to claim 7, in which said microbe is selected from a group comprising Bacillus, Lactobacillus, Lactococcus, Staphylococcus, Lysteria, Monocytogenesis, and Streptococcus.

9. (Previously amended) A vaccine for treating or preventing mucosal tumor, which contains as an effective component, microbes transformed with the vector of claim 1, expressing an antigen protein onto a cell surface, crude antigen proteins extract from said microbes or antigen proteins purified from said microbes.

10. (Original) The vaccine for treating or preventing mucosal tumor according to claim 9, which can be administered orally or be edible.

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11. (Original) The vaccine for treating or preventing mucus tumor according to claim 9, which can be injected subcutaneously or peritoneally.
12. (Original) The vaccine for treating or preventing mucosal tumor according to claim 9, which can be sprayed to the nasal cavity.
13. (Cancelled)
14. (Original) The vector for preparing a vaccine according to claim 1, which has the genetic map as illustrated in Fig. 5 and is named as pHCE2LB: pgsBCA- HPV E7.
15. (Currently amended) A microbe which is transformed with ~~[[a]] the vector selected from the group consisting of pHCE2LB: pgsA- HPV L1 and pHCE2LB: pgsBCA- HPV E7.~~
16. (Currently amended) The microbe according to claim 15, in which Lactobacillus or Salmonella is used as a host cell.
17. (Cancelled)
18. (Currently amended) The Escherichia coli transformant identified by ~~which is transformed with the vector of claim 13 (accession number: KCTC 10520 BP[D])~~.
19. (Previously amended) A vaccine for treating or preventing mucosal tumor which includes as an effective component, the microbe of claim 16 expressing an antigen protein onto a cell surface, crude antigen proteins extract from said microbe or antigen proteins purified from said microbe.
20. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be administered orally or be edible.
21. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be injected subcutaneously or peritoneally.
22. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be sprayed to the nasal cavity.

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23. (Previously amended) A washing solution for a genital organ, which includes as an effective component, the microbe of claim 16 expressing an antigen protein onto a cell surface, crude antigen protein extract from said microbe or antigen proteins purified from said microbe.